Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

VOL. 45 DECEMBER 1918 NO. 12

BULLETIN

OF THE

TORREY BOTANICAL CLUB

Editor

ALEXANDER WILLIAM EVANS

Associate Editors

JEAN BROADHURST
JAMES ARTHUR HARRIS
MARSHALL AVERY HOWE
MICHAEL LEVINE
WILLIAM GEORGE MARQUETTE
ARLOW BURDETTE STOUT
NORMAN TAYLOR

CONTENTS

Notes on plants of the northern United States—IV.
FRANCIS W. PENNELL 477

The strand flora of the Hawaiian Archipelago—II. Ecological relations.
VAUGHAN MACCAUGHEY 483

INDEX TO AMERICAN BOTANICAL LITERATURE. 503

INDEX TO VOLUME 45 511

PUBLISHED FOR THE CLUB

THE NEW ERA PRINTING COMPANY

LANCASTER, PA.

THE TORREY BOTANICAL CLUB

President
HERBERT M. RICHARDS, Sc.D.

Vice-Presidents
JOHN HENDLEY BARNHART, A.M. M D
C. STUART GAGER, PH.D.

Secretary and Treasurer
BERNARD O. DODGE, PH.D.
Dept. of Botany, Columbia University
New York City

MEETINGS

Meetings twice each month from October to May inclusive: the second Tuesday at 8:00 P.M., at the American Museum of Natural History; the last Wednesday at 3:30 P.M., in the Museum Building of the New York Botanical Garden.

PUBLICATIONS

All subscriptions and other business communications relating to the publications of the Club should be addressed to the Treasurer, Dr. Bernard O. Dodge, Dept. of Botany, Columbia University, New York City.

Bulletin. Monthly, established 1870. Price, $4.00 a year; single numbers 40 cents. Of former volumes, only 24–43 can be supplied separately; certain numbers of other volumes are available, but the entire stock of some numbers has been reserved for the completion of sets. Manuscripts intended for publication in the BULLETIN should be addressed to the Editor, Osborn Botanical Laboratory, Yale University, New Haven, Connecticut. Papers should not exceed twenty pages in length, and illustrations (other than zinc etchings) should be limited to one page of half tones or one plate for each ten pages of text. Longer and more copiously illustrated papers, however, may be published if the excess pages and illustrations are paid for by the contributors.

Torreya. Monthly, established 1901. Price, $1.00 a year. Manuscripts intended for publication in TORREYA should be addressed to Norman Taylor, Editor, Brooklyn Botanic Garden, Brooklyn, N. Y.

Memoirs. Occasional, established 1889. (See last pages of cover.)

Preliminary Catalogue of Anthophyta and Pteridophyta within 100 miles of New York City, 1888. Price, $1.00

Reprints. Contributors of articles accepted for publication in the BULLETIN should order reprints, if desired, when they return galley proof to the editor. 25 copies of reprints without cover may be had gratis. If cover is wanted, or if more than 25 copies are wanted, they may be ordered through the editor at the following rates from The New Era Printing Co., Lancaster, Pa., contributor paying for all his reprints.

	2pp	4pp	8pp	12pp	16pp	20pp
25 copies	$ .79	$1.14	$1.78	$2.32	$2.87	$3.28
50 copies	1.03	1.43	2.23	2.82	3.52	3.92
100 copies	1.45	2.03	2.73	3.50	4.23	4.55
200 copies	2.15	3.24	3.92	5.25	6.52	6.92

Covers: 25 for $1.00, additional covers 1¼ cent each.

Plates for reprints, 50 cents each per 100.